

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently amended): ~~A detection port type probe characterized by~~ A plasma monitoring device comprising:

at least an electroconductive supporting member having an opening formed on at least a part of a surface thereof facing to plasma; and

a dielectric member having a probe electrode formed on one side thereof positioned at the opening of the electroconductive supporting member, wherein the probe electrode is made of an optically transparent electroconductive substance.

2. (Currently amended): The ~~detection port type probe~~ plasma monitoring device according to claim 1, ~~characterized by connecting~~ further comprising an impedance matching unit connected to the probe electrode.

3. (Currently amended): The ~~detection port type probe~~ plasma monitoring device according to claim 1, ~~characterized in that~~ wherein the ~~dielectric~~ dielectric member is made from an optically transparent glass.

4. (Cancelled).

5. (Currently amended): The ~~detection port type probe~~ plasma monitoring device according to claim 1, ~~characterized in that~~ wherein the opening formed on the electroconductive supporting member has a function of a viewing port.

6. (Currently amended): [[A]] The plasma monitoring device ~~using the detection port type probe defined in~~ according to claim 1, ~~characterized in that~~ further comprising a voltage waveform measuring unit for measuring a voltage waveform [[is]] disposed at an output end of the ~~detection port type probe~~ electrode.

7. (Currently amended): The plasma monitoring device according to claim 6, ~~characterized by~~ further comprising a process monitoring mechanism for detecting a stability of plasma by detecting a degree of nonuniformity among cyclical waveform changes of the voltage waveform detected by the voltage waveform measuring unit.

8. (Currently amended): The plasma monitoring device according to claim 6, ~~characterized by~~ comprising an anomalous discharge monitoring mechanism for detecting anomalous discharge of plasma from the changes in voltage waveform detected by the voltage waveform measuring unit.

Amendment under 37 CFR § 1.111

Application No. 10/512,141

Attorney Docket No. 042887

9. (Currently amended): ~~A plasma processing apparatus characterized by comprising~~
~~the~~ The plasma monitoring device defined in claim 6, wherein the plasma monitoring device is
mounted on a plasma processing apparatus.

10. (Currently amended): The plasma ~~processing apparatus~~ monitoring device
according to claim 9, ~~characterized in that~~ wherein the electroconductive supporting member
provided with the opening is a flange constituting a viewing port of a reaction vessel, and [[that]]
the dielectric member is a transparent glass plate for sealing the flange.

11. (New): The plasma monitoring device according to claim 1, further comprising a
electromagnetic shielding member for shielding the probe electrode.

12. (New): The plasma monitoring device according to claim 11, wherein the
electromagnetic shielding member is made from an optically transparent electroconductive
substance.